IBB, OFFICE OF INTERNET DEVELOPMENT

STATEMENT OF WORK

<u>CONTENT MANAGEMENT SYSTEM</u>

Updated 27August 2002

SUMMARY

The International Broadcasting Bureau (IBB) has a requirement for a Contractor to provide a **Content Management System** (hereafter referred to as CMS) to publish multimedia content to a variety of IBB's Internet Web sites: including, but not limited to: www.voanews.com, www.ibb.gov, www.bbg.gov, www.voa.gov and www.radiosawa.com.

This Statement of Work (SOW) outlines the requirements for this CMS.

BACKGROUND

Under the supervision of the Broadcasting Board of Governors (BBG), the International Broadcasting Bureau (IBB) provides the administrative and engineering support for U.S. government-funded non-military international broadcast services. Broadcast elements include the Voice of America (VOA), Radio Sawa, Radio and TV Martí (Office of Cuba Broadcasting), and WORLDNET Television and Film Service. The broadcast elements produce and transmit over 1,000 hours of news, informational, educational, and cultural programs every week to an audience of some 94 million worldwide. VOA programs are produced and broadcast in 53 languages via radio, television, and the Internet.

The CMS will handle multimedia content produced by these elements and the IBB and publish it to the more than 70 individual Internet Web sites managed by IBB's Office of Internet Development (OID).

IBB produces various types of Web sites and the CMS must accommodate over 200 simultaneous individual content producers and thousands of visitors. The types of Web sites it must successfully publish for include, but is not limited to:

News & Information (in 53 Languages)
VOANews.com's 70+ Web sites are maintained by news editors with very little HTML knowledge. Many of these sites are updated several times an hour in more than 30 languages. The CMS shall allow editors to post news content quickly, in language, often as news breaks. It shall be able to publish text, audio, video, images and other multimedia content that are produced in 53 languages.

Corporate/General/Press Releases/Personnel Information
The CMS shall be able to update content dynamically for the VOA.gov, IBB.gov, BBG.gov and other Agency elements. These sites contain information such as press releases, general facts about the organization, job announcements and other publicity material. These sites are updated daily and have a slightly different look and feel than the news sites.

Radio Sawa
Radiosawa.com broadcasts 24 hours of music and some news in Arabic. It is assigned a separate URL from IBB's other sites. At the current time, this site is a portal for listening to radio broadcasts via the Internet. The CMS shall be able to publish to a site like this one and similar sites that will be added in the near future. The CMS shall also support the expansion of content on sites like this one to include a variety of news, entertainment, features, and functionalities.

IBB CMS Experience
IBB has over two years experience developing its customized, multilingual, dynamic, database driven content management system. This system was created using ColdFusion 4.51 and MS SQL Server technology. IBB is seeking a new system that incorporates the latest advances in content management technology. IBB's preferred solution will include an "out of the box" CMS product that allows customizations.

CONTENT MANAGEMENT SYSTEM REQUIREMENTS

ARCHITECTURE: FEATURE AND DESIGN REQUIREMENTS

1   CMS shall allow authors/editors to publish multimedia articles to their Web sites, with multiple levels of permissions and approvals. In some cases, the item might be an article that contains, text, audio and video. In other cases, the editor shall be able to post an audio, video file or photo slide show. The CMS shall include the following features:

   1.1   Create, Edit & Publish Multimedia Content -The CMS shall allow news editors to create, edit and publish text, audio, video, images and HTML data to IBB Web sites. The CMS shall be full featured, easy to use and require no technical knowledge on the part of content producers. It shall be flexible, stable and reliable. The application shall allow editors to check a full preview version before distributing content to the public Web site. Editors must also be able to update these articles easily as news events evolve.

1.2 **Text** -The CMS allows editors to import text from a word processing application such as Microsoft Word or a News Content Management System and use it as the basis for article text. The it shall have the ability to check spelling. The Contractor shall work with IBB design staff in development phase to specifically customize the article creation templates. General items required included space for a headline, teaser, body, correspondent name, and dateline.

1.3 **Audio** – The Editor shall be able to enrich the article by adding audio files created in other programs and compressed to formats including: Real Audio, MP3, Media Player. The CMS shall facilitate the publishing of a live audio stream or audio drawn from an archive.

1.4 **Images** - The CMS shall allow editors to add or create photographs to accompany the article text from a digital asset library. This may be using archived photographs or adding new photos created in a photo-editing program such as PhotoShop or Paintshop Pro. Photographs are currently produced in JPEG and GIF compressed formats. The editor shall be able to add a caption to the photo. The caption information includes a photo credit and a description of the photo. Editors shall be able to add the caption in any of the IBB supported languages. For example, one editor might use a photo with an English caption, while another editor might want to use the same photograph, but add a Spanish language caption. Some photos include a mandatory Associated Press photo credit. There is an option to generate this AP credit if applicable. The editor shall be able to control placement of the photo on the page so that the pictures can be placed near the appropriate text.

1.5 **Video** - Editors shall be able to use the CMS to add video files created as "asx", "mov", "rm" (and new video formats as they become available) to their article. They shall also have the ability to publish a video file to their Web site with a small caption, in language, explaining to readers what is contained in the video clip.

1.6 **Related Links** - Editors shall have the ability to retrieve and add links to other news articles created and stored in the IBB database or add links to other URL's.

1.7 **Tables** - The editor shall have the option to publish a table to their site or inside an article. Tables might have text in language or images, GIF or JPEG files, as part of its content. The editor shall have the ability to set standard HTML table attributes.

1.8 **Time-Date Stamps** - Many articles shall require that a time/date stamp be automatically generated as it is published to the public server. A systems administrator shall be able to adjust the time/date format so that it displays in language.

1.9   Article Ranking - News Editors shall have the ability to rank and place articles on a page according to their relevance. Editors shall be able to publish articles on sub-category pages, e.g. a South Asia news page, a sports page, or a health page.

1.10   Speed - The application shall enable news editors to post and update multimedia content quickly and efficiently in a fast paced breaking news environment.

1.11   Multilingual Capabilities - News editors shall be able to post content in a variety of languages including, but not limited to: English, Arabic, Farsi, Mandarin, French, Spanish, Greek, Czech, Russian, Serbian, Turkish, Hungarian, Ukrainian, Thai, Korean, Hindi, Estonian, Slovak, Macedonian (Cyrillic). Note: Some of these languages read right to left and CMS facilitates content that reads right to left or left to right.

1.12   Easy to Use - The application shall minimize the learning curve for internal users by its intuitive layout and navigation, coupled with visual GUI (Graphical User Interface). The application shall include customized error messages and help menus to assist users. Form pages shall include field validation checking.

1.13   Multi-level Publishing – The CMS shall have the ability to create and assign multiple content containers on 1st, 2nd and 3rd level pages with security level control. This includes the ability to create and control the assignment and layout of content. It also includes the ability to globally or individually resize the Web site.

1.14   Digital Asset Management - Application shall have a digital asset library permitting content producers via various levels of security to easily add and remove images, media files, documents, tables, and other objects.

1.15   Search/Delete - Content shall be searchable by the public and editors by date range, key word name, title. The CMS shall support recent searching capability and Advanced Search through an archive. For Web site editors, this feature shall provide a screen list that can globally or individually delete items. It shall be capable of removing specific content based on a searchable date range, key word name, and title. This search capability applies to all languages.

1.16   Style Templates - CMS shall be flexible so that it can accommodate the variety of Web sites under the IBB umbrella. The application shall enable IBB designers to create templates for the various types of Web sites. The application supports the creation and installation of custom templates. Use of templates shall also be permission based and controlled through the administration tool. The CMS shall facilitate the use of industry standard and customized style sheets and permits the use of predefined style classes.

TECHNICAL REQUIREMENTS

2 CMS shall work with all present and future versions of ColdFusion and MS SQL Server (currently CF 5.0 and SQL 2000) and run on a standardized platform, e.g. Windows 2000 server. The CMS shall also fulfill the following technical requirements.

2.1 Fully **Unicode compliant** and capable of handling **user-defined fonts.**

2.2 **Browser based** so editors can add/edit content from any location.

2.3 Run on **clustered server** environment.

2.4 Handle Web sites with **different URL addresses.**

2.5 Support the ability to create and duplicate components as unique instances and display them in various layers on the site. The CMS also shall permit the ability to reuse component applications by providing the ability to embed objects in the editor.

2.6 Include capacity to **export static HTML** pages for proxy or mirror sites.

2.7 Provide a **text only** version of the Web site.

2.8 Generate a **dynamic site map**.

2.9 Allow IBB technical staff to have administrator level **control of Char-sets, ISO, ANSI, UTF support**.

2.11 The application shall be **scalable**. It permits IBB software developers to add extended functionality at various locations in the CMS through the insertion of customized modular Cold Fusion components. It should also be capable of working with Macromedia's new MX technology.

2.12 The application shall permit editors to place appropriate customized **metadata** for keyword searches and search engines at the page and article level.

2.13 The CMS shall support the creation and distribution of **e-mail** (text or HTML) via a list-serv and "**cyber-journal**" or e-mail newsletters. This includes the ability for users to sign up and opt out.

2.14 The application shall run successfully in a fully managed **third party hosting** solution.

2.15 The application shall be able to import or **leverage existing content** from applications residing on other servers and Web sites, including data feeds from legacy systems.

2.16 The application shall be able to **export or "syndicate" targeted content via XML** or with other appropriate technologies (IE. WAP) to affiliated Web sites, mass emailing programs and over mobile phone networks. The determination of which language to use is made in concert with the IBB Internet Technology Group.

2.17 The CMS shall display several **graphic views** of site activity including page views and other standardized statistics.

2.18 **Archives** – The CMS shall support archive and retrieval of multimedia content.

2.19 **Browsable** – The CMS shall permit users to browse, select and open up other documents or media files within the application.

2.20 **Privacy** – The CMS shall support IBB adherence to all US Government rules and regulations concerning Privacy on the Internet.

CMS ADMINISTRATIVE REQUIREMENTS

3 The application shall provide the ability to assign **multiple administrators** with specific roles and permissions so that they can perform site maintenance and editing, including the following requirements.

3.1 **Multiple User Groups** - The application shall permit user permissions on job functions, with the option to add both individual users and or users by group i.e. Farsi language editors - to control access to the various features and systems found within the site.

3.2 **Performance monitoring** - CMS in monitoring functions shall provide clear and detailed information on Web site performance and flags areas where performance is not at acceptable standards. This information shall point to appropriate log files and other system diagnostics to allow the IBB Systems Administrators to pinpoint problems on hosting servers or in the application and take action as appropriate.

3.3 **Scheduled Tasks**
The CMS shall support scheduled routine maintenance. These currently include, but are not limited to: deletion of some articles over 30 days old, deletion of Associated Press photographs over 2 weeks, log rotation and deletion.

CMS SECURITY REQUIREMENTS

4 The application shall provide permission-based views, with an unlimited number of combinations of approval and permission settings for client's ability to have access to pages, content and assets, and layouts. It shall also include the following requirements.

    4.1 Establishe specific paths (work flow) that take pages, content and assets from the editing process to a published format.

    4.2 Adhere to current and future privacy policies established for Federal Web sites as required by the Privacy Act, 5 U.S.C. 552a, and OMB Circular No. A-130, "Management of Federal Information Resources," 61 Fed. Reg. 6428 (Feb.20, 1996) as described in OMB document M-99-18 which is posted at http://www.whitehouse.gov/omb/memoranda/m99-18.HTML

TASKS

Task 1 – Content Management System – The Contractor shall deliver base CMS software and any additional code required to successfully meet requirements established in this SOW.   Software and code shall be delivered in phases. The Contractor shall first provide a testing and evaluation Web site for testing by IBB personnel.   After the Contractor and OID agree upon necessary customizations and modifications, a second version of the CMS shall be provided. Once IBB has approved these changes and modifications, the Contractor shall deliver final product for Installation. The Contractor shall provide technical on-site support during final installation.

Task 2 - Management Support - The Contractor shall provide program management support for the duration of this contract. A single point of contact Project Manager (PM) for SOW technical and procedural matters shall be provided. The PM shall ensure that all tasks are performed according to SOW requirements. The PM shall also ensure that all required documents and deliverables are properly prepared and delivered.

Task 3 -Project Planning and Coordination - The Contractor shall provide for the coordination, scheduling, planning, communication and execution of key program events that include the creation of a project plan; work breakdown structure; estimate of duration, resources, and costs; and a communication plan. The Contractor shall provide periodic technical and progress reports that establish event status and that demonstrate the progress to-date. The Contractor shall support the use of MS Project to analyze the development process and provide data in Gantt and network chart formats.

Task 4 – Testing Web site
Two weeks following the award of the contract the Contractor shall provide a fully functional testing Intranet Web site for multiple OID/IBB personnel to start becoming familiar with the base CMS. This Web site shall be password protected and accessible 24/7.

Task 5 -Project Documentation - The Contractor shall perform technical writing and editing tasks for the system's design, development, and specification of the hosting hardware and support. The Contractor shall review and edit documents, manuals, reports, and other documentation for accuracy, literacy, and technical contents. The Contractor shall deliver documentation in both hard copy and on electronic media.

Task 6 - Training for OID/IBB Technical Staff and Internal Users - The Contractor shall prepare and deliver a written training program that thoroughly briefs OID/IBB developers on the function of the application and how the components work together. Even though some portions of code may be proprietary, OID developers need to know exactly how the program calls the various components and modules and how they interact with the database and Web servers. Any modules developed specifically for IBB technical staff will be open source to OID and the programming logic provided to IBB's Internet Technology Group.

The Contractor shall also prepare and deliver a written training manual that will be used to teach content producers how to use the application. The manual shall be delivered in both written and digital format.

The Contractor shall provide at a minimum three days of training for OID Developers and at least two days of training for IBB internal users.

Task 7 – Six Months of On-call Technical support
Upon successful implementation of CMS the Contractor shall designate technical contact (TC) who shall act as a liaison between the Contractor and IBB's Internet technical staff. The TC shall be available by telephone during regular business hours and provide a cell phone or beeper number in case of emergencies. The TC shall be available 24/7 for on-call support for a period of six months following IBB's final approval of the application installation.

Task 8 – Globalization Report
Three weeks after the award of the contract the Contractor shall provide a Globalization Report from a third party demonstrating the CMS's ability or inability to work with all of IBB's news content languages Char-sets. For a list of languages visit http://www.voanews.com. This report shall include recommendations and solutions that will be used in the event that the CMS base product does not pass the Globalization audit during the customization phase.

Task 9 – Final Installation

The Contractor shall provide onsite technical support to install final CMS code on IBB's hosting and development servers. The Contractor shall coordinate with IBB's offsite hosting service provider for making any necessary changes to Cold Fusion 5.0 and SQL 2000 settings.

DELIVERABLES

During the performance of the contract the Contractor shall specifically provide:

1. Management oversight to deliver the services and products described herein. The Contractor shall provide a Project Manager (PM) and Technical Coordinator (TC) to interact with IBB's Authorized Representative of the Contracting Officer (ARCO) and IBB's TC. The Contractor shall provide engineering and technical support to plan, develop, test and implement CMS.   The Contractor personnel shall have the capability to interact with IBB's technical and management staff on a daily basis. The Contractor shall provide logistics, procurement resources, and facilities necessary to purchase, control, and report on the equipment, materials, supplies, software, and services required for the performance of the efforts defined in the SOW.

2. The Contractor shall periodically meet at IBB headquarters with OID personnel to plan and implement the CMS. Based on these discussions, The Contractor shall provide a written Project Plan and that includes development, integration and implementation for approval by IBB's OID staff. This plan will also outline and identify any necessary customizations to the Contractor's base CMS product. Project Plan will be reviewed and approved by OID personnel before implementation.

3. The Contractor shall provide an online development testing and evaluation Web site for use by IBB personnel.

4. The Contractor shall provide a third-party globalization report of its source code that offers a detailed review of all known issues with the support of international char-sets that relate to the languages in use by IBB. For a list of languages visit http://www.voanews.com.

5. The Contractor shall deliver base CMS software and any additional code required to successfully meet requirements established in this SOW.   Software and code will be delivered in phases. The Contractor shall first provide a testing and evaluation Web site for testing by IBB personnel.   After the Contractor and OID agree upon necessary customizations and modifications a second version of the CMS shall be provided. Once IBB has approved these changes and modifications the Contractor shall deliver final product for Installation.   The Contractor shall provide technical on-site support during final installation.

6. The Contractor shall provide a written training program, including necessary documentation and training manuals for both technical staff and internal users. The

size and scope of training manuals will be mutually agreed upon prior to their creation. In addition, the Contractor shall provide, at a minimum, three full days of on-site instruction for up to ten IBB technical personnel in the use of the CMS and two full days of on-site instruction for up to twenty-five IBB internal users. The Contractor shall also provide an hourly rate for additional training.

7. The Contractor shall provide "Unlimited rights" and "Unlimited use" of the following data: (1) data produced during the performance of the contract (except to the extent such data constitute minor modifications to data that are limited rights data or restricted computer software); (2) form, fit, and function data delivered under contract; (3) data (except as may be included with restricted computer software) that constitute manuals or instructional and training material for installation, operation, or routine maintenance and repair of items, components, or processes delivered or furnished for use under a contract; and (4) all other data delivered under the contract other than limited rights data or restricted computer software. If any of the foregoing data are published copyrighted data with the notice of 17 U.S.C. 401 or 402, the Government acquires them under a copyright license.

8. The Contractor shall provide detailed technical and internal user training as well as a subscription for future application updates. The Contractor shall prepare and deliver a written training manual that will be used to teach internal users how to use the application. The Contractor shall provide technical specifications of CMS for use by IBB's Internet technology staff. The Contractor shall deliver documentation in both hard copy and on electronic media.

9. The Contractor shall provide travel and materials to perform the tasks of SOW.

10. The Contractor shall provide 24/7 technical phone support for six months from date of final launch online development testing and evaluation environment. This support shall include bug fixes and code evaluation. In addition, The Contractor shall provide an hourly rate for additional technical support, both remote and onsite.

SCHEDULE OF EVENTS

Event	Description	Date	Total Time Elapsed
1	Contract Award	*See SF 1449, Block 3	0
2	1st Planning Meeting	2 weeks after award of contract	2 weeks
3	CMS Testing Web site	2 weeks after award of contract	2 weeks
4	Project Plan/	1 week after 1st planning meeting	3 weeks
5	Training Plan	3 weeks after award of contract	3 weeks
6	Globalization Report	4 weeks after award of contract	4 weeks
7	2 Days of Base CMS Training for technical staff	2 weeks after event #6	6 weeks
8	1st CMS customization update	4 weeks after event #3	7 weeks
9	1st review of CMS	2 weeks after event #7	9 weeks
10	2nd CMS customization update	3 weeks after event #9	12 weeks
11	2nd review of CMS	2 weeks after event #10	14 weeks
12	Final Installation of CMS/with updated documentation	1 week after event #11	15 weeks
13	1 Day of Final CMS Training for technical staff	1 week after event #11	15 weeks
14	Final Approval of CMS	2 weeks after event #12	17 weeks
15	2 Days of Internal User Training	6 weeks after event #14	23 weeks
16	Six months of on-call 24/7 technical support	1 week after event #11	43 weeks